

Ackerman, Joyce

From: Dave Stewart <Dave.Stewart@stewartenv.com>
Sent: Tuesday, November 7, 2017 2:30 PM
To: Stovall - CDPHE, Curtis
Cc: Walker - CDPHE, David; Ackerman, Joyce; MacGregor - CDPHE, Kelly; Richard Dean; Jonathan H. Steeler; Ray Wagner, CPG; DFolkes@geosyntec.com; Thomas J. Krasovec
Subject: RE: Neuhauser Landfill - NGPRS Report

Curt, per our conversation yesterday, please see my responses below - Dave



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From: Stovall - CDPHE, Curtis [mailto:curtis.stovall@state.co.us]
Sent: Monday, November 06, 2017 11:38 AM
To: Dave Stewart
Cc: Walker - CDPHE, David; Ackerman, Joyce; MacGregor - CDPHE, Kelly; Richard Dean
Subject: Neuhauser Landfill - NGPRS Report

Dave,

The purpose for my call this morning was to follow-up on our brief discussion last Monday during the site visit. The Division would like to schedule a meeting or conference call with NGPRS and you to discuss the EM61 investigation and reporting. Here is a preview of some of our questions/comments:

1. Based on the drawings, the entire waste footprint in both areas (Area 1 and 2) was not covered by the EM61 survey. Why? **We felt that the coverage was adequate but Waste Connections is bringing back National GPR to do their site and we will capture the areas that you highlighted which is the upper NE section of the site and the area to the west prior to the pond. We will also go a little farther to the east on the west section of the work area. This will be on a map and agreed to for both the waste connections property and the work area prior to any work being performed.**
2. Why were certain anomaly locations ruled out as not likely indicative of drums? **As we discussed, the areas that are identified have an oval and are to be investigated prior to the drum removal project. We will also pot hole some of the other areas as discussed, but it was felt by National GPR that this was more likely surface debris. This will be discussed prior to any drum removal.**
3. Why is a 15-foot line spacing deemed adequate? **Due to the size of the drums that we are looking for, the 15 foot spacing is industry standard.**
4. Was the survey conducted in a grid or was it conducted only in single-direction lines? **The survey was done by GPS real time and therefore, only single directional lines were done. However, the instrument was capable of knowing exactly where the previous line was and the 15 foot spacing was maintained. (The lines are 10 to 15**

feet apart depending on the terrain and the amount of vegetation, which can make the instrument deviate for short periods of time, but overall, the spacing was typically 15 feet – clarification by Ray Wagner of National GPR discussion yesterday).

5. Why weren't the survey lines/grid plotted for the drum investigation? They were only plotted for the bedrock investigation. **We will provide a plot of the survey lines.**
6. At the bottom of page 2, the report states that Channel 1 was selected because it provides the deepest exploration depth. What is the exploration depth in waste areas? **The exploration depth was referring to the ground penetrating radar, not the EM survey. The EM had a depth of 15 to 18 feet.**
7. The second bullet item on page 3 seems to rule out anomalies in the central portion of the landfill. Why? What is the basis for this? **It was felt that these were surface debris, not drums. As stated above, we will pot hole this area to verify that there are not drums located in this area.**
8. The second bullet on page 3 seems to identify 4 anomaly locations, while Exhibit A-2 seems to identify 5 locations. **This was discussed as to why this statement reads as it does. The areas of anomalies have an oval shape and are identified on A-2.**
9. Test pits are not plotted on any drawing so it's unclear which anomalies (and to what extent those anomalies) were investigated. **The National GPR survey used GPS positioning for the survey. This was not tied into the coordinate system for the site. We will work with National GPR and the surveyor to get this to an approximate location.**
10. What do the red dots and violet-colored areas represent on Exhibit A-1? **The red dots are the test pits that were performed while National GRP was on site. The violet colored areas represent the areas where drums are very likely to be found.**
11. The staked area in the field near MW-2 seems to be much smaller than the anomaly area. Why? **The staked area was done while the survey was taking place. This is not to indicate the entire area of the drum locations but a good approximation. It has always been anticipated that this will be determined during the excavation of the drums.**

We look forward to discussing these issues with you.

Thanks,
Curt

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